

INTRODUCTION

This manual depicts and describes the Aerospace Ground Support Equipment necessary to support breathing and survival systems. Each item has a figure and its associated description as shown in the following sections.

Section 1. Suit Equipment AGE

Section 2. Ventilation Equipment AGE

Section 3. Ready Room AGE

Section 4. Vehicle Lox Equipment AGE

Section 5. Parachute Packing Loft AGE

Section 6. Composite AGE List

USAF review(s) completed.

AEROSPACE GROUND SUPPORT EQUIPMENT

COMPOSITE NUMERICAL INDEX

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SECTION 1

SUIT EQUIPMENT AGE

1-1	DN 71800-3	Test Stand
1-2	FS8923-1	Dead Weight Tester
1-3	FS8922-1	Gauge
1-4	FS8919-1	Master Barometer
1-5	FS8921-1	Low Flow Measuring Devices
1-6	FS8920-1	High Flow Master Flowrator
1-7	DN 70700-3	Full Pressure Suit Tester

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
DN 71800-3	Test Stand, Suit Components	DN 71800	(E)	(CFE) The Firewel Co.	7 Mo.	7/1/65 STAT

Cost breakdown

Additional Nomenclature if Required

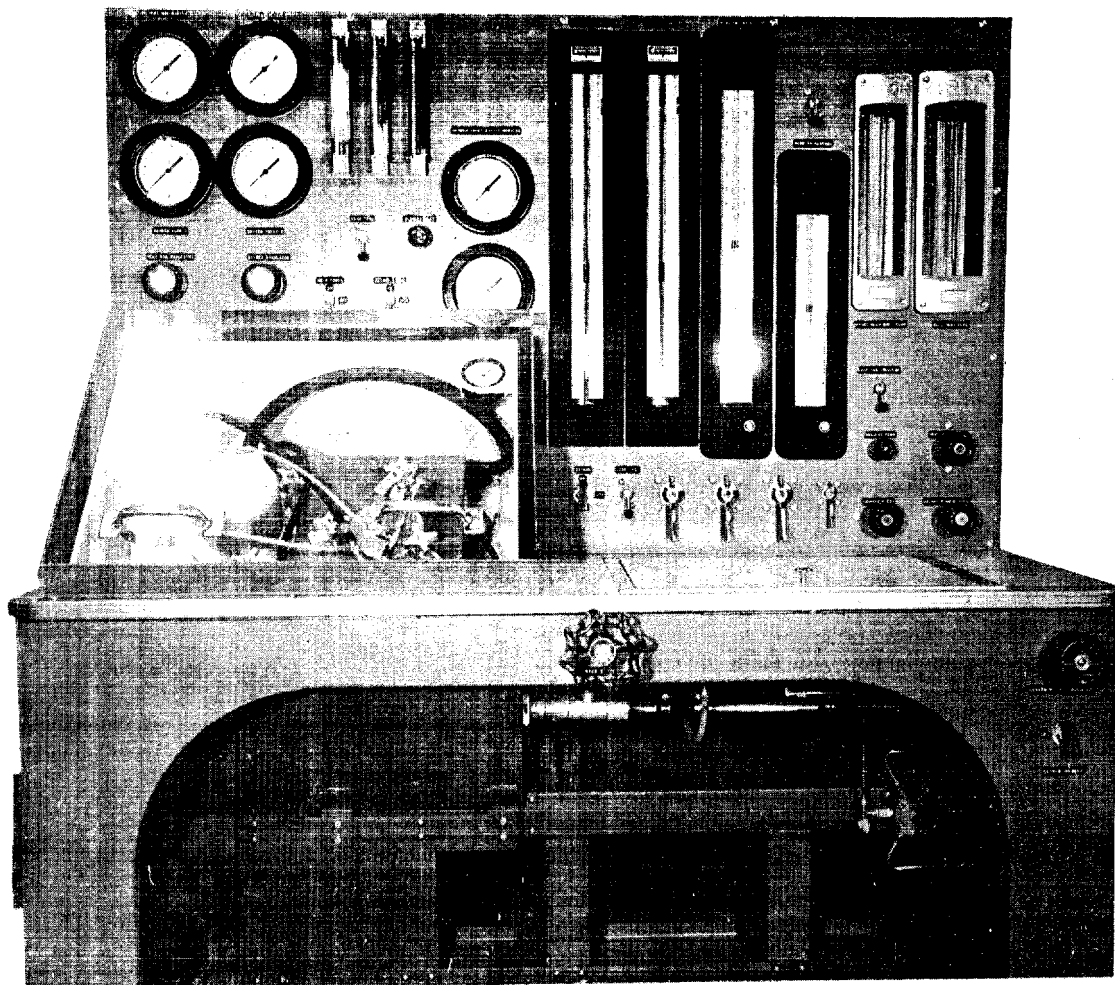
Problem Area - To provide depot level overhaul maintenance and periodic inspection for the pressure suit components

Remarks - Test stand P/N DN 71800-1 is designed to permit operational, periodic and overhaul maintenance testing for the components of the full pressure suit. The test stand consists of a vacuum chamber and all the instrumentation required to perform leakage and operation of the suit controller; the flow, leakage and safety pressure tests for the helmet mounted regulators, and the leakage tests required for the personal leads hoses. The outline dimensions of the test stand are 34.0 inches in depth, 60.0 inches long and 70.0 inches high. The weight is 750 pounds.

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
BW 4	1				
BW 5		2			
BW 6					
7					
8					
	1	2			3

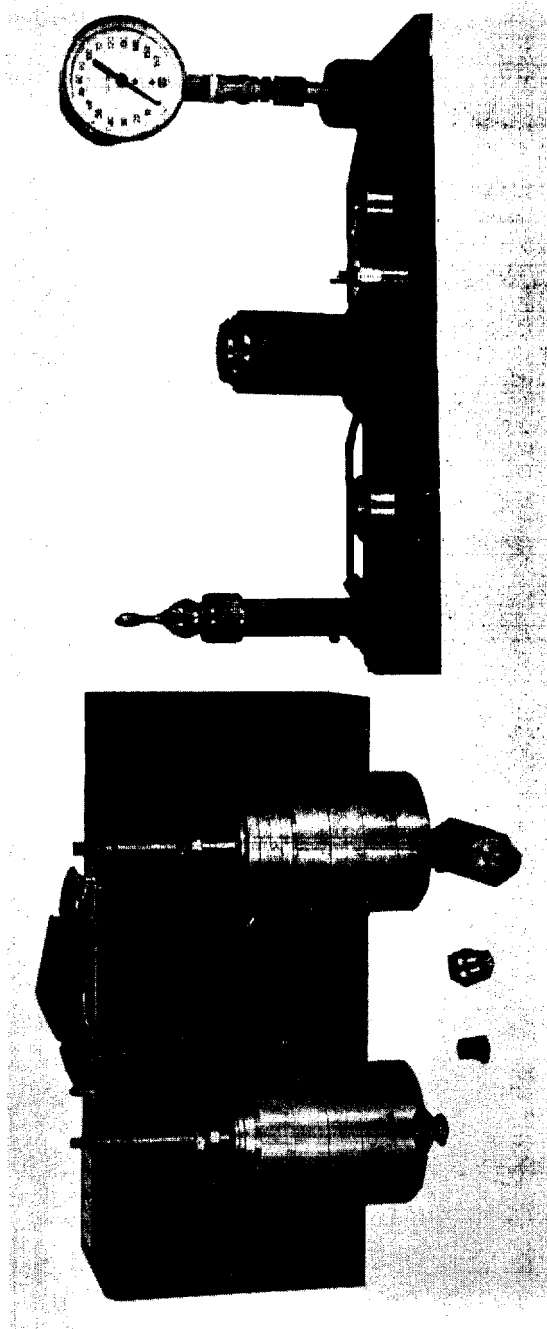
Superseded By _____

Item Number A-1



DN 71800-3

Test Stand, Suit Components



FS 8923-1

Dead Weight Tester

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
FS8922-1	Gauge			(CFE) The Firewel Co.		

Additional Nomenclature if Required _____

Problem Area - To provide a calibration standard to assure accuracy of the equipment pressure gages

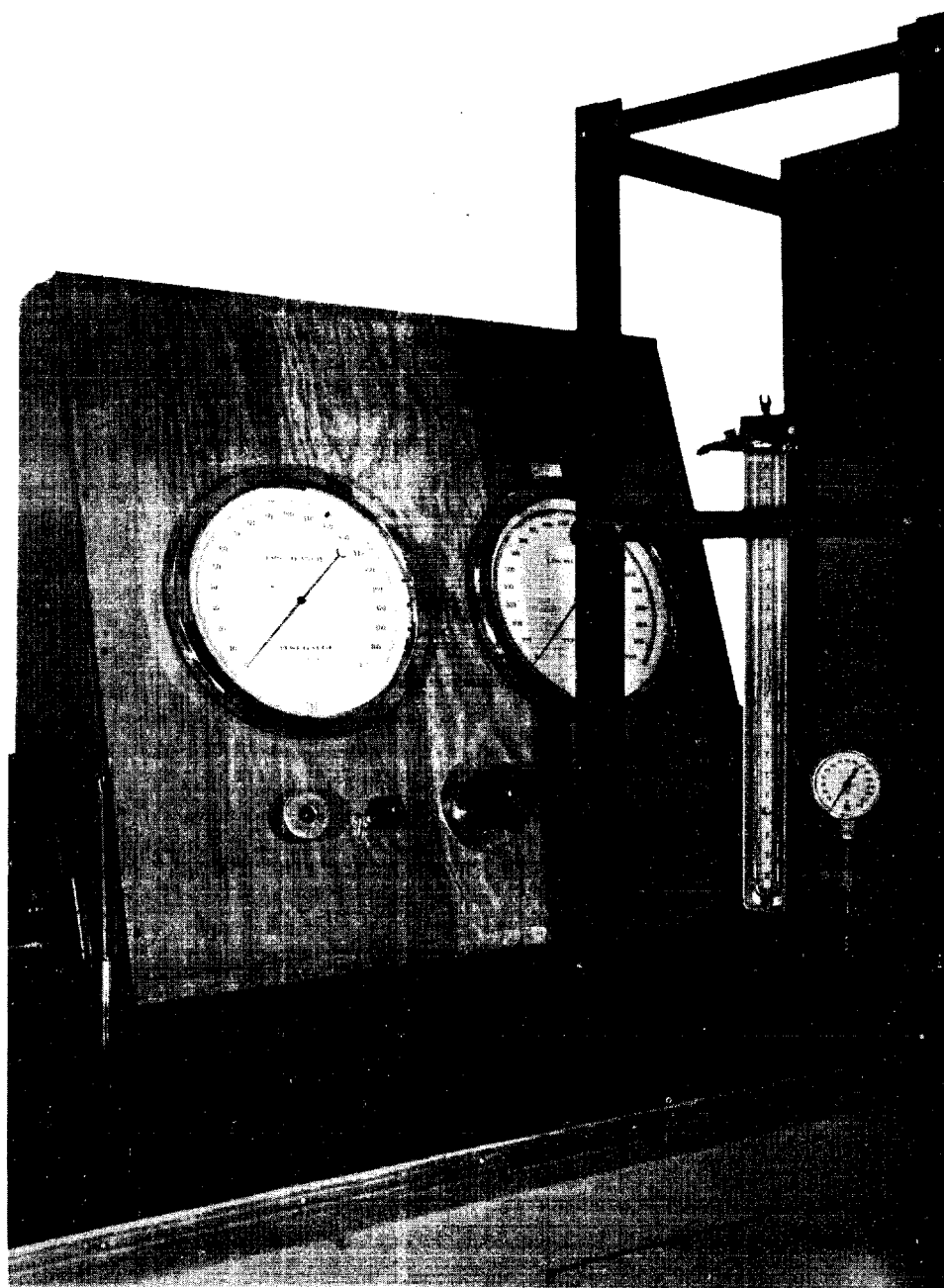
Remarks - To maintain accuracy of test equipment, periodic calibration, is required. The master test gage is an accepted master calibration standard to assure accuracy of pressure gauges. Approximate size 16 inches diameter, 5 inches deep. Approximate weight 25 lbs.

GRAND TOTAL

LOCATION	CONTRACT	CONTRACT	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
GRAND TOTAL	0				0

Superseded By: _____

Item Number A-3



FS 8922

Test Stand, Gage Calibration

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
FS8919-1	Barometer, Master			(CFE) The Firewel Co.		

Additional Nomenclature if Required

Problem Area - To provide a calibration standard to assure accuracy of altimeters, rate of climb indicator etc.

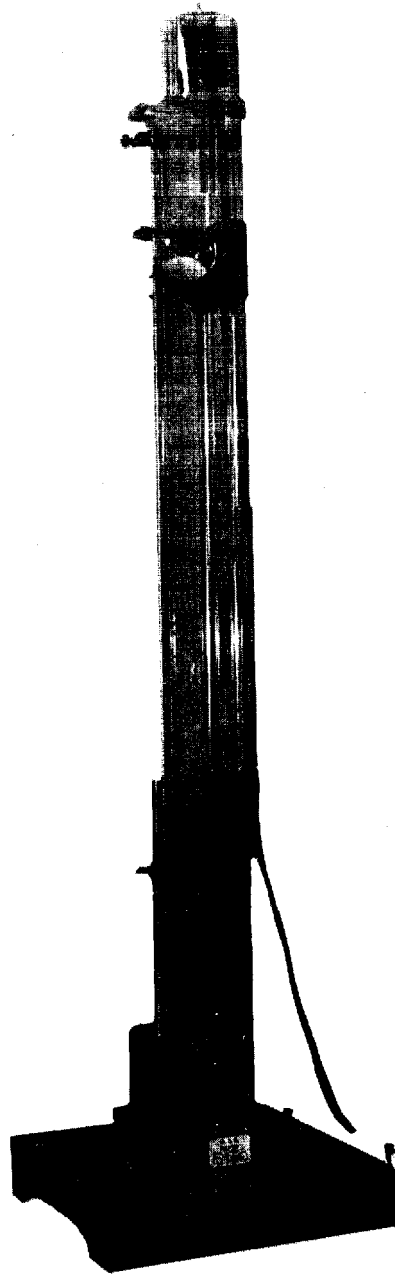
Remarks - To maintain accuracy of test instrumentation, periodic calibration is required. This barometer is an accepted master calibration standard to assure accuracy of equipment altitude sensing device. Approximate overall dimensions, 4 inches square, 46 inches high and mounted on a 9 inch square base 2-1/2 inches high.

GRAND TOTAL

LOCATION	CONTRACT	CONTRACT	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
	0				0

Superseded By _____

Item Number A-4



FS 8919-1

Barometer, Master

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
FS8921-1	Low Flow Measuring Devices			(CFE) The Firewel Co.		

Additional Nomenclature if Required _____

Problem Area - To provide a calibration standard to assure accuracy of the low flow meter in equipment

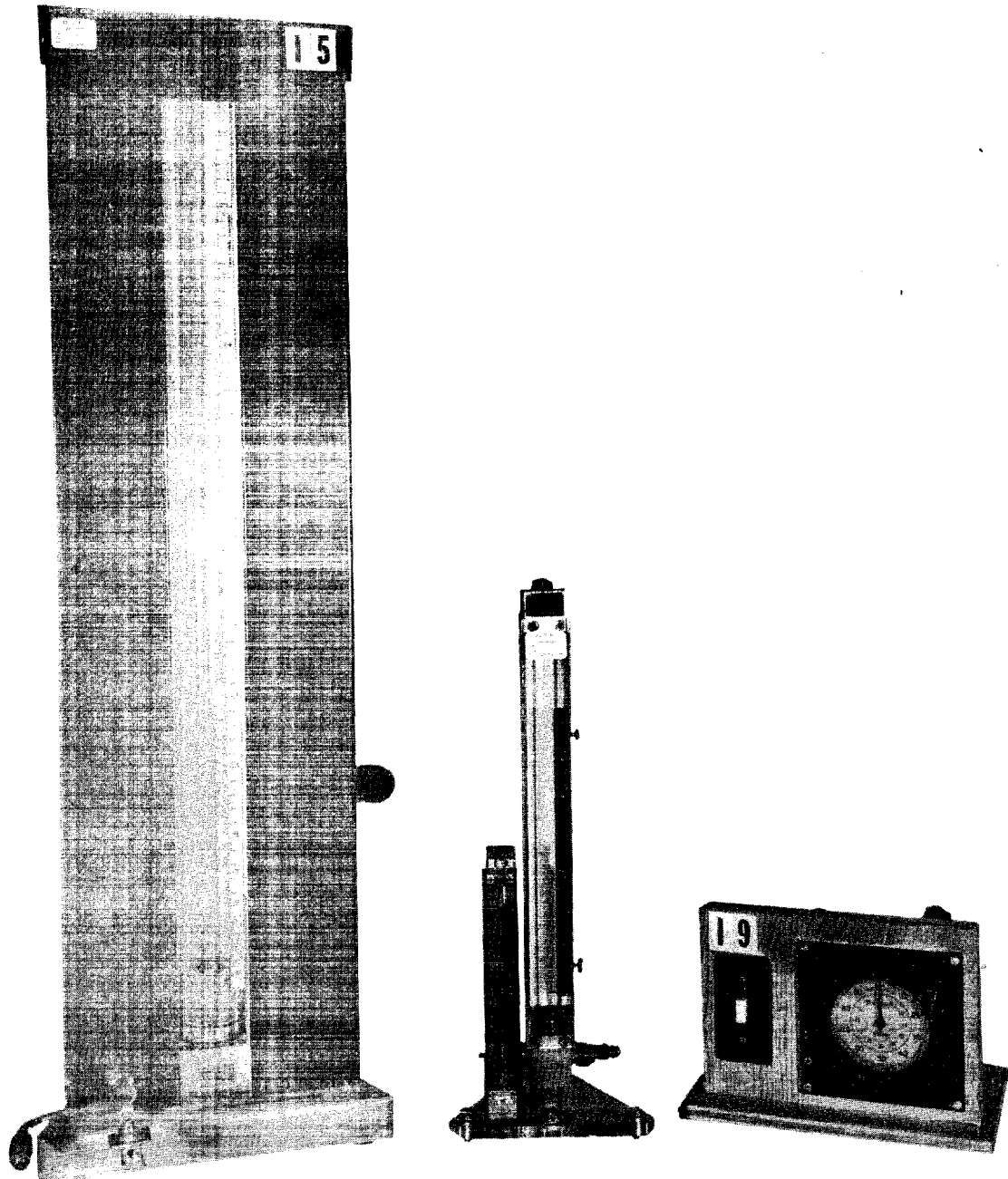
Remarks - To maintain accuracy of test instrumentation, periodic calibration is required. These devices at accepted master calibration standards utilized to assure accuracy of low flow measuring devices. Approximate overall dimensions are 9 inches wide 34 inches high and 6 inches deep. Approximate weight 9 lbs.

GRAND TOTAL

LOCATION	CONTRACT	CONTRACT	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
	0				0

Superseded By _____

Item Number A-5



FS 8921-1

Low Flow, Measuring Devices

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
FS8920-1	Multi-Stage Flowrators			(CFE) The Firewel Co.		

Additional Nomenclature if Required _____

Problem Area - To provide calibration standard to assure accuracy of large flow flowmeters utilized in equipment.

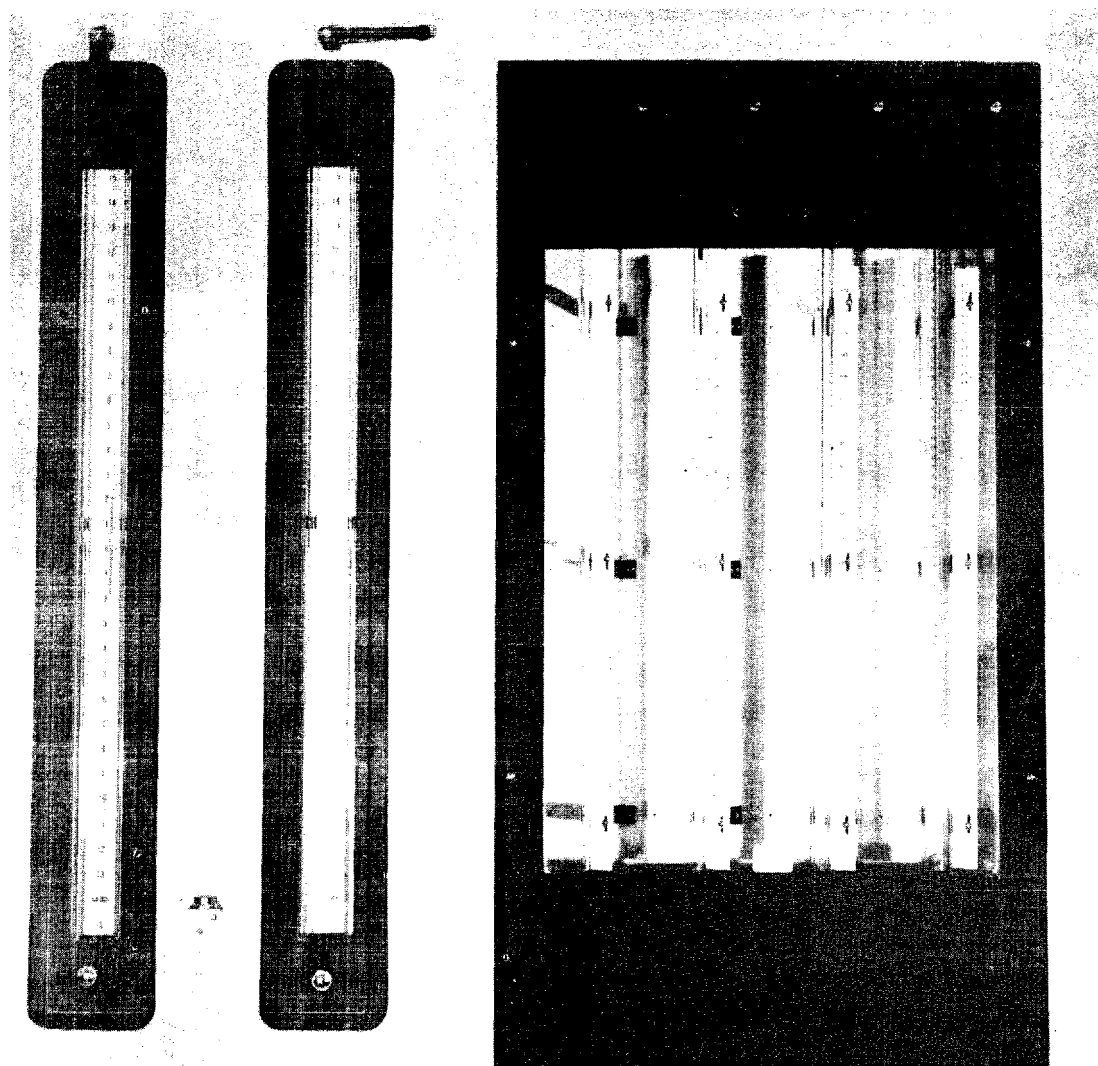
Remarks - To maintain accuracy of high flow measuring devices a master flowmeter is required. The master flowrator is an accepted standard to assure accuracy of equipment flow meters. Approximate overall dimensions are 26 inches wide 39 inches high and 8 inches deep. Approximate weight 60 lbs.

GRAND TOTAL

LOCATION	CONTRACT	CONTRACT	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
GRAND TOTAL	0				0

Superseded By _____

Item Number A-6



FS 8920-1

Multi-Stage Flowrators

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
DN 70700-3	Full Pressure Suit Tester	DN 70700	<div style="border: 1px solid black; width: 50px; height: 20px; display: flex; align-items: center; justify-content: center;">(E)</div>	(CFE) The Firewel Co.	4 Mo.	1/15/65 STAT

Additional Nomenclature if Required

1400192

Problem Area - To provide a portable preflight full pressure suit functional test

Remarks - Portable pressure suit tester P/N DN 70700-3 is a hand portable kit, capable of performing suit leakage and pressure tests as well as determining suit and helmet differential pressure. The portable tester is mounted in a integral case which measures 9.0 inches high by 12.75 deep. The weight of the unit is 25.0 pounds.

GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
BW 4	5				
BW 5		12			
BW 6		2			
7					
8					
GRAND TOTAL	5	14			19

Superseded By _____

Item Number A-7



DN 70700-3

Full Pressure Suit Tester

SECTION 2

VENTILATION EQUIPMENT AGE

2-1	OT 2013	Lox Converter Components
2-2	DN 22800-1	Dual Disconnect AGE
2-3	F152-1000	Liquid O ₂ Ventilator
2-4	F204-4560-1	Suit Loading Valve Assembly
2-5	DN 71800-3	Deleted (See page 1-1)
2-6	F278-1760-1	Liquid O ₂ Ventilator Fill Fixture

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
OT 2013	Test Stand Liquid Oxygen Converter Components	OT 2013		(CFE) The Firewel Co., Inc.		

Additional Nomenclature if Required

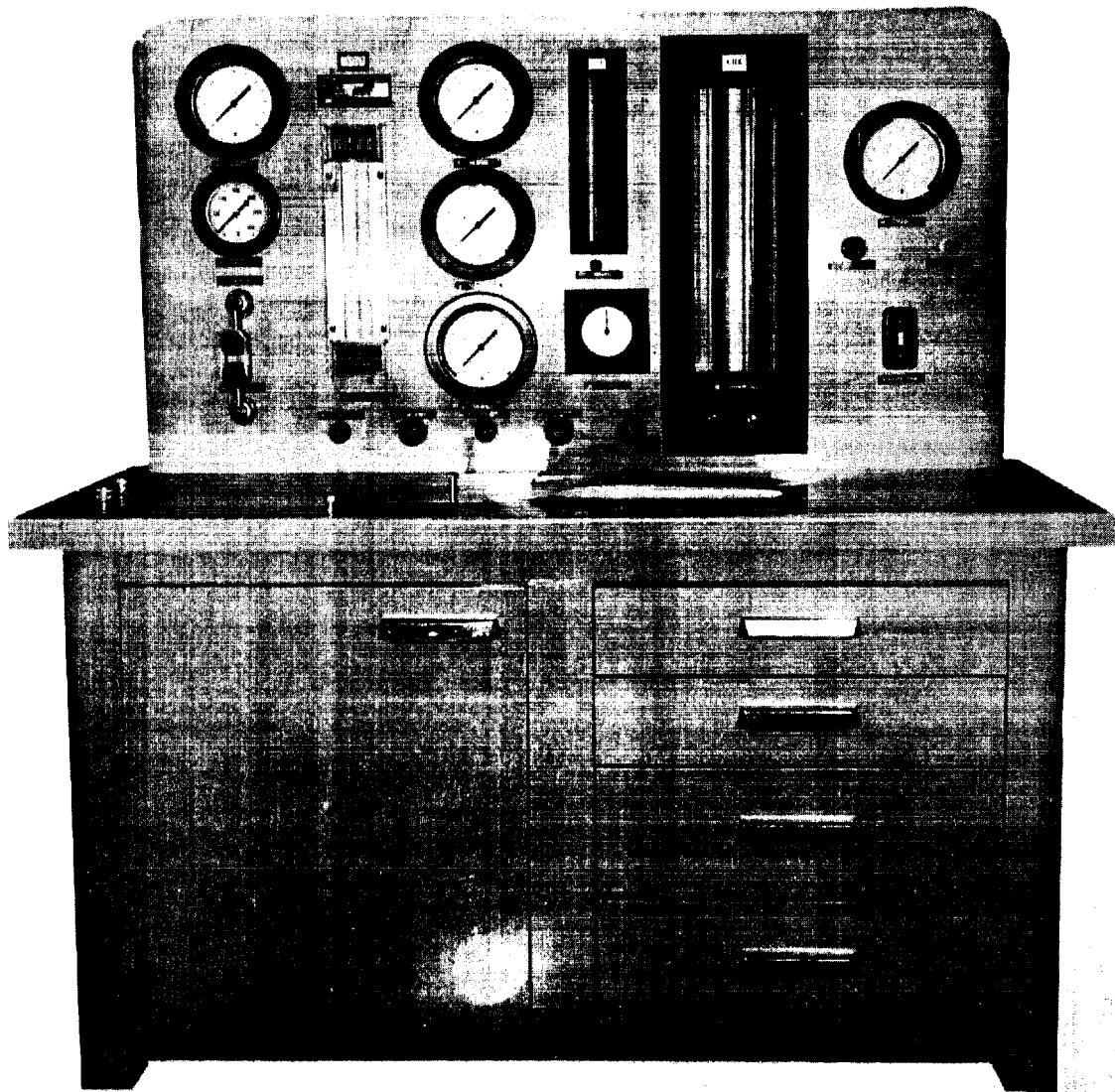
Problem Area The component valve assemblies used on the liquid oxygen hand held ventilators must be checked to determine their functional operation prior to reinstallation in the system. This test stand is used at the time of overhaul.

Remarks Test stand P/N OT 2013 is specifically designed to accomplish the different phases of testing on the component parts. The test unit incorporates the following components: two pressure reducer regulators for two pressure systems, pressure gages with gauge protectors, timer, flowmeters and valves, service requirements: 115 volt AC cycle, I phase. Approx. envelope dimenstions; 74 inches wide, 60 inches high and 29 inches deep. Approx. weight 575 LBS. **GRAND TOTAL**

LOCATION	CONTRACT	CONTRACT	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
	0				0

Superseded By _____

Item Number B-1



OT 2013

Test Stand, Liquid Oxygen Converter Components

Basic Date 10/30/64

Latest Revision

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
DN 22800-1	Age Dual Disconnect	DN 22800	(E)	(CFE) The Firewel Co.	4 Mo.	1/15/65 STAT

Additional Nomenclature if Required

Problem Area To provide a method of connecting the dual breathing system of the full pressure suit to the single hose connection of the ventilator

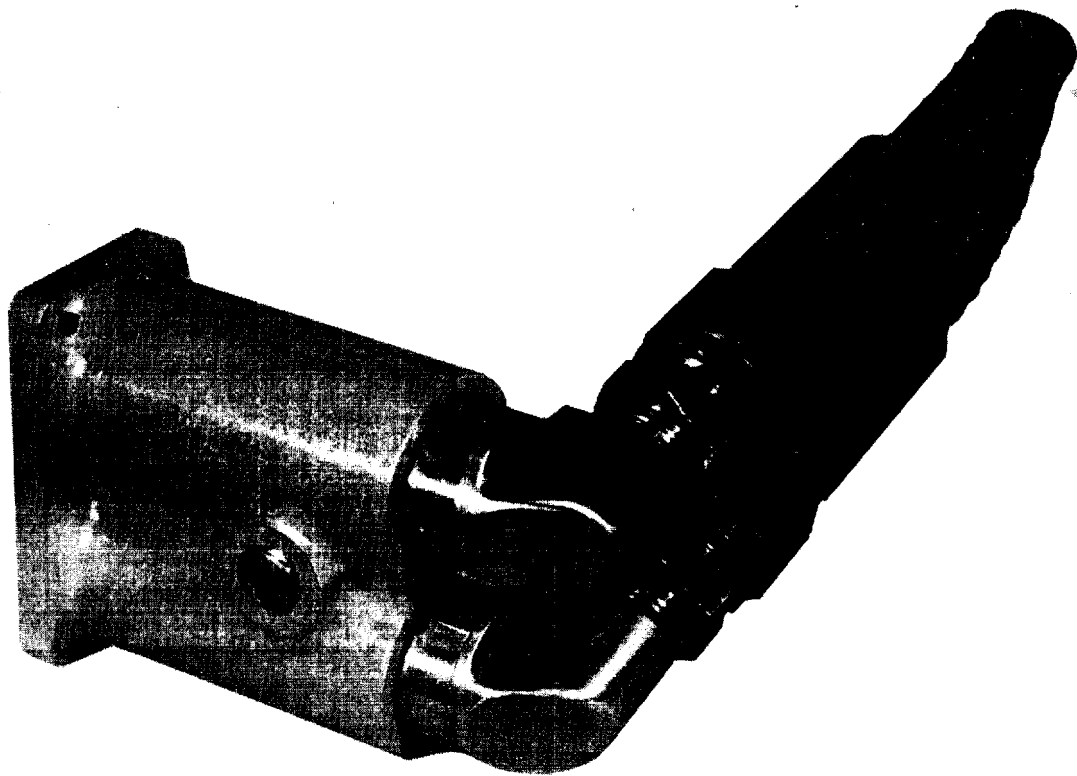
Remarks Dual disconnect P/N DN22800-1 is design to facilitate the dual hose connection which is required for functional operation of the portable ventilation system.
Approximate weight is 0.75 pounds.
Approximate dimensions are 2 in. wide, 1 in. depth, 3 in. long Two 36 in. hose lengths attached

GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
BW 4	10				
BW 5		15			
BW 6		4			
7					
8					
	10	19			29

Superseded By

Item Number B-2



DN22800-1

Dual Disconnect

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
F152-1000	Ventilator Liquid O ₂	F152-1000-1	<input type="text"/>	(CFE) The Firewel Co.	5 Mo.	1/15/65 STAT

Additional Nomenclature if Required _____

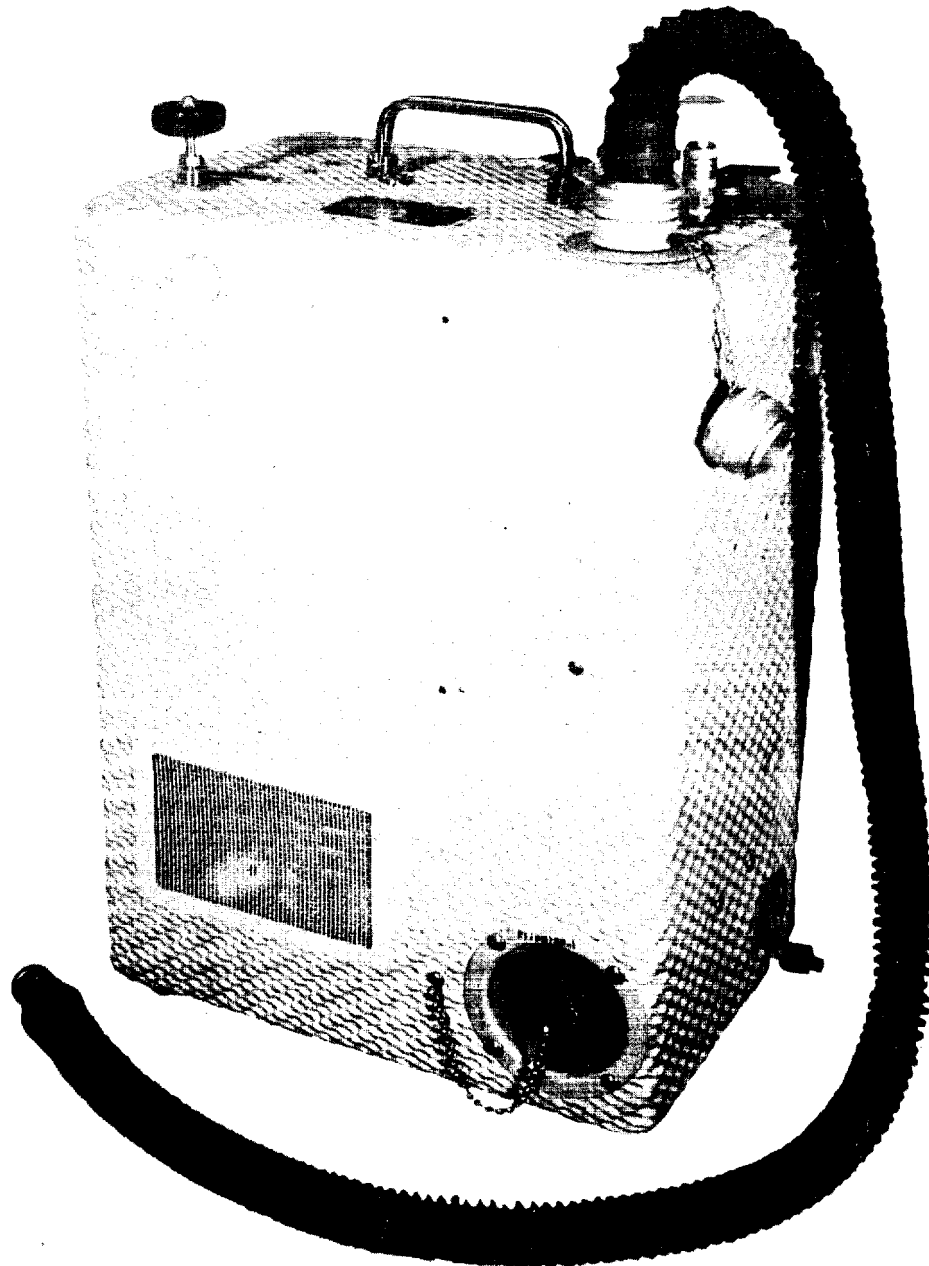
Problem Area - To provide breathing oxygen and a method of cooling, dehumidifying and ventilating suits worn by aerospace vehicle crewmembers while in a standby or waiting condition.

Remarks - Ventilation and breathing liquid O₂ ventilator, P/N F152-1000-1 has been designed to provide breathing oxygen as well as cool, dehumidify and ventilate suits worn by aerospace vehicle crewmembers while in a standby condition or during transit prior to connecting to aircraft LOX system. It is hand portable and utilizes 11.0 pounds of liquid oxygen for 45 minutes operation. Outline dimensions are 9.0 in. by 13.0 in. and weighs 29.0 pounds when filled with LOX. Significant features of this unit are the **GRAND TOTAL** highly refined storage vessel insulation, the strong yet light weight case, the optional operating and control characteristics.

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
BW 4					
BW 5		30			
BW 6		4			
7					
8					
	0	34			34

Superseded By _____

Item Number B-3



F152-1000

Ventilator, Liquid O₂

Basic Date 10/30/64

Latest Revision

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
F204-4560	Valve Assy. Suit Loading	F204-4560-1		(CFE) The Firewel Co., Inc.	3 Mo.	7/1/65 STAT

Additional Nomenclature if Required

Problem Area A method is required to fully pressurize and maintain the pressure in a full pressure suit to perform various tests.

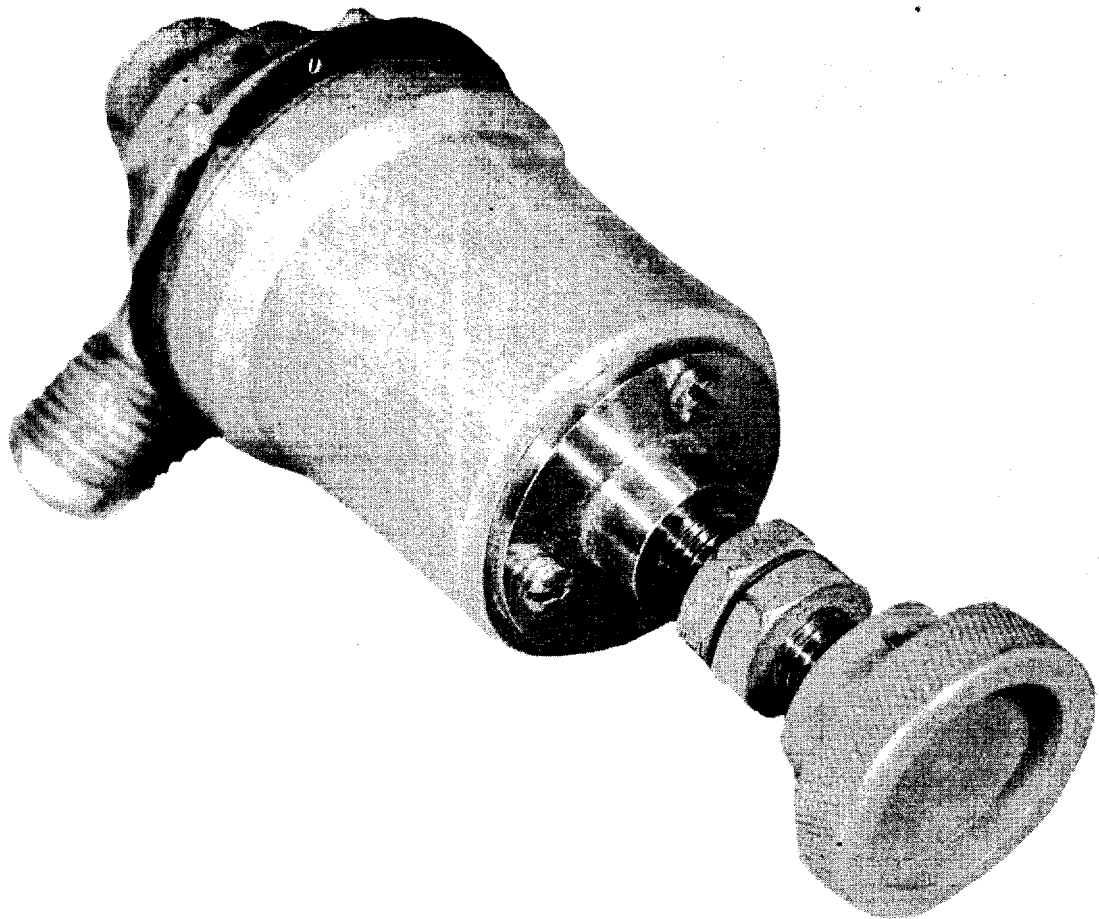
Remarks Suit loading valve assembly, P/N F204-4560- is designed to provide a manual method of controlling the pressurization of a full pressure suit when connected to the suit controller. Various test pressures can be maintained while test functions are accomplished. Approximate weight is 8 ounces. Approximate dimensions are 3 IN. long by 1-1/2 diameter.

GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
BW 4					
BW 5		8			
BW 6					
7					
8					
GRAND TOTAL	0	8			8

Superseded By

Item Number B-4



F204-4560

Valve Assembly, Suit Loading

Deleted

See page 1-1, Item Number A-1

Deleted

See page 1-1A

DN 71800-3

Test Stand, Suit Components

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
F278-1760-1	Fill Fixture, Liquid O ₂ Ventilator	F278-1760	<input type="text"/>	(CFE) The Firewel Co.	6 Mo.	7/1/65 STAT

Additional Nomenclature if Required

See drawing for details

Problem Area - A test fixture is required that will be capable of filling liquid oxygen ventilators.

Remarks - Fill fixture P/N F278-1760-1 is specifically designed to fulfill the filling requirements stated above. There are four stations where filling operations can be accomplished. Approx. envelope dimensions, 36 inches wide, 84 inches long and 12 inches high. Approx. weight 70 LBS.

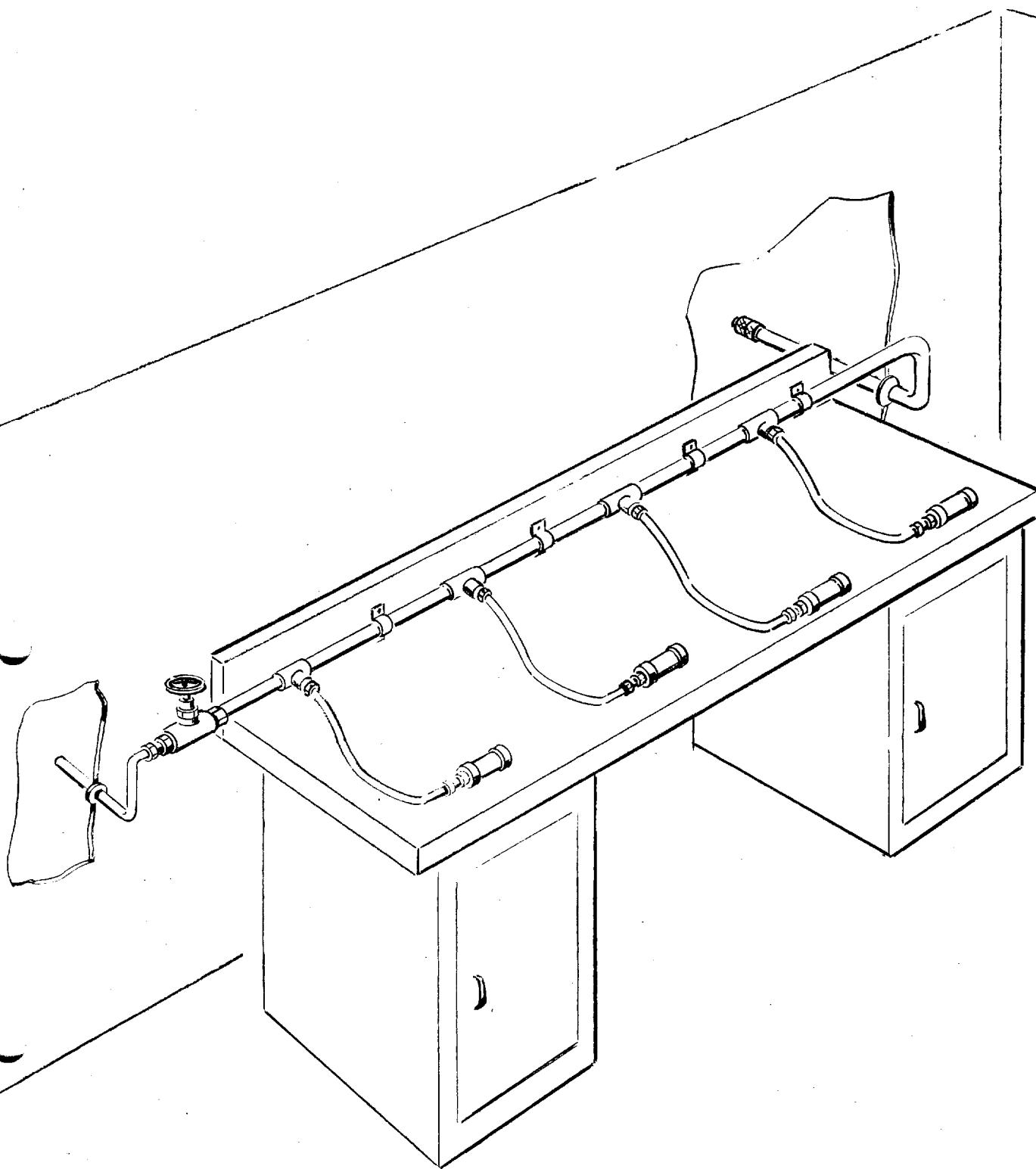
GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
GRAND TOTAL	0	0			0

* Lox disconnects to be furnished GFE

Superseded By _____

Item Number B-6



F278-1760-1

Fixture Liquid O₂, Ventilator

2-6 A

SECTION 3

READY ROOM AGE

3-1	DN 70800-3	Ventilation Unit
3-2	DN 78200-1	Ready Room Chair with Side Table
3-3	DN 70700-3	Deleted (See page 1-7)
3-4	DN 78300-3	Suit Ventilation, Oxygen and Intercommunication Facility
3-5	DN 78300-1	Suit Ventilation and Oxygen Facility

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
DN 70800-3	Ventilation Unit	DN 70800		(CFE) The Firewel Co.		

Additional Nomenclature if Required

Problem Area - To cool, dehumidify and ventilate (and breathing air if required) suited aerospace vehicle crewmembers during ready room briefing

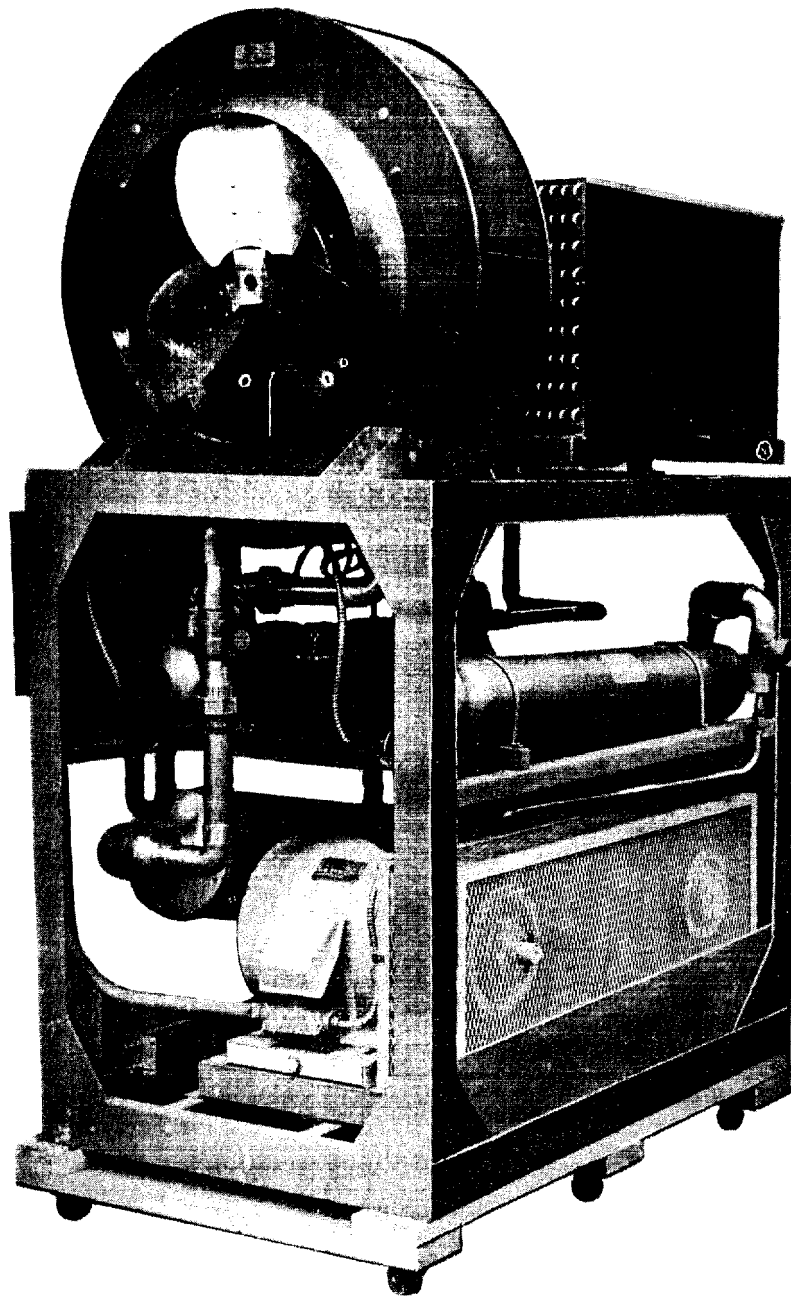
Remarks - Ventilation Unit, P/N DN 70800-3 is designed to supply cool ventilation air for up to six (6) men in full pressure suits. The unit basically, is a mechanical refrigeration device incorporating a positive displacement blower for suit ventilation. Approximate outline dimensions for unit are 3.0 feet wide by 5.0 feet long and a height of 7.0 feet. The approximate weight is 1200 pounds.

GRAND TOTAL

LOCATION	CONTRACT	CONTRACT	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
	0				0

Superseded By _____

Item Number C-1



DN 70800-3

Ventilation Unit

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
DN 78200-1	Chair, with Side Table, Ready Room	DN 78200	<input type="text"/>	(CFE) The Firewel Co.		STAT

Additional Nomenclature if Required _____

Problem Area - Aerospace vehicle crewmembers require comfortable seating facilities preflight briefing

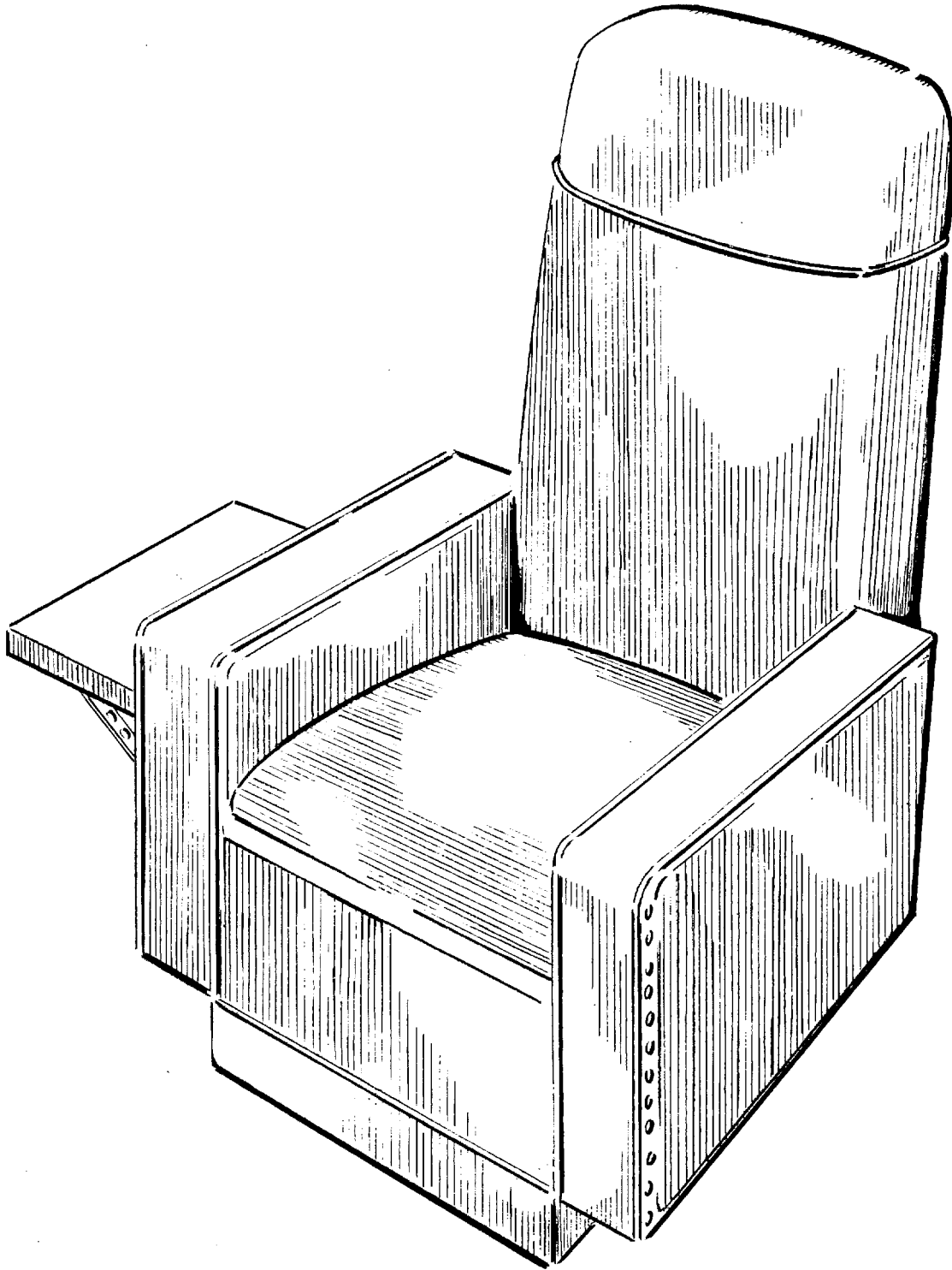
Remarks Pilots ready room chair with side table P/N DN 78200-1 is an upholstered chair with a reclining feature designed to afford the crewmember a reasonable amount of comfort during preflight briefing. A side table is attached the right arm of the chair for placement of pressure suit tester as a convenient writing surface. Approximate size is 60 inches high by 36 inches deep. This chair weighs approximately 8 pounds.

GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
	0	0			0

Superseded By _____

Item Number C-2



DN 78200-1

Chair with Side Table, Ready Room
Approved For Release 2006/03/10 : CIA-RDP68B00632R000100030021-7

Deleted

See Page 1-7 Item Number A-7

Deleted

See Page 1-7A

DN 70700-3

Full Pressure Suit Tester

Basic Date _____

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
DN 78300-3	Suit Ventilation, Oxygen, and Intercommunication Facility	DN 78300		(CFE) The Firewel Co.		STAT

Additional Nomenclature if Required

Problem Area To provide preflight suit ventilation, prebreathing and inter communication capabilities to aircrew members during preflight briefing phase.

Remarks Suit Ventilation, Oxygen, and Intercommunication Facility P/N DN 78300-3 is a console which provides an AIC/10 communication station, ventilation hoses and flow control, and breathing oxygen service. All applicable vent, oxygen and communications connections are provided. Approximate dimensions: 10" x 10" x 5". Approximate Weight: 9 LBS.

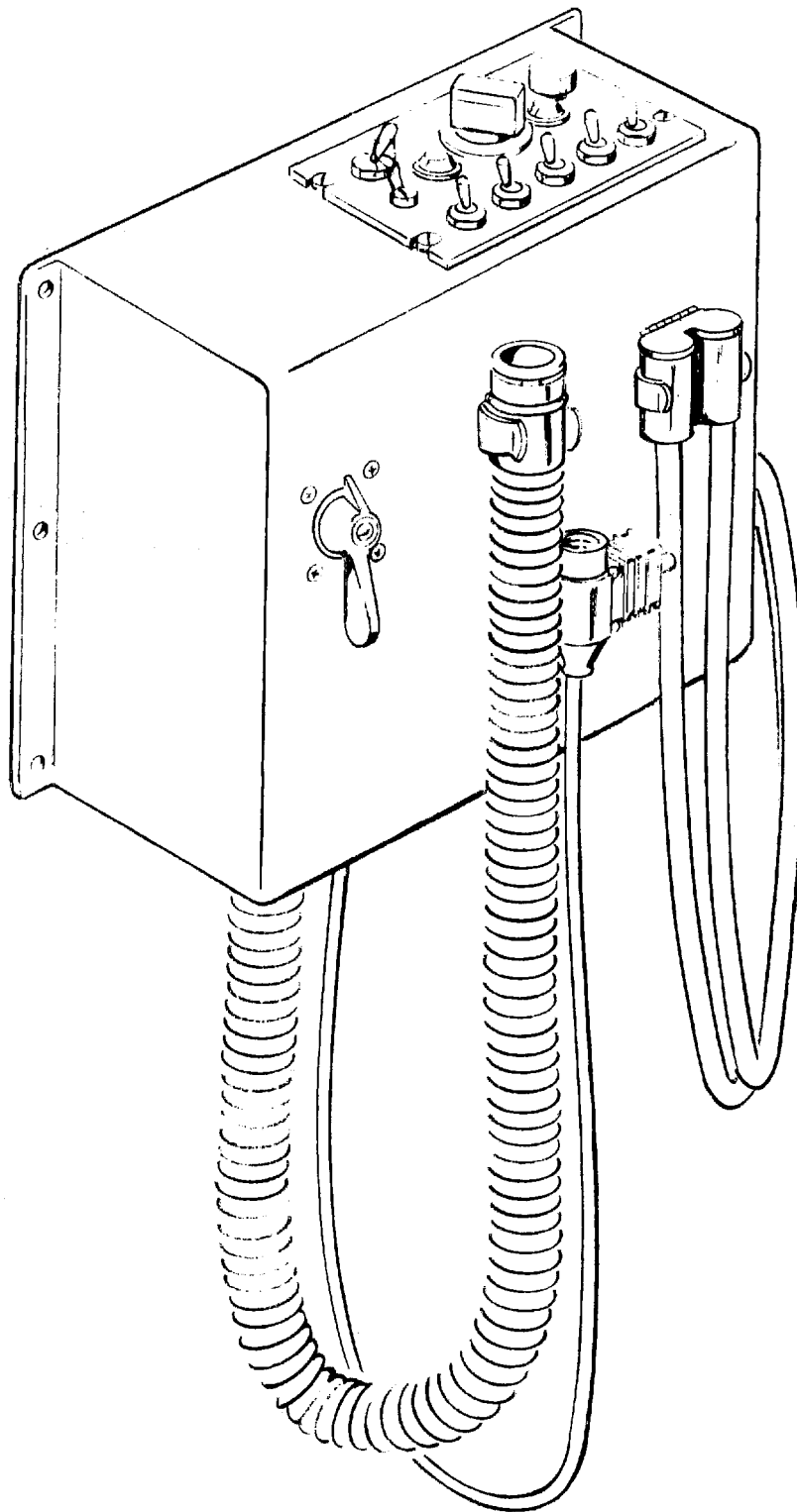
GRAND TOTAL

* Intercommunication Unit to be furnished GFE.

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
	0	0			0

Superseded By _____

Item Number C-4



DN78300-3

Suit Ventilation, Oxygen and

Basic Date _____

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
DN 78300-1	Suit Ventilation and Oxygen Facility	DN 78300-1	<input type="text"/>	(CFE) The Firewel Co.		STAT

Additional Nomenclature if Required _____

Problem Area To provide suit ventilation and oxygen pressurization in the suit work area to facilitate suit maintenance, repair and testing.

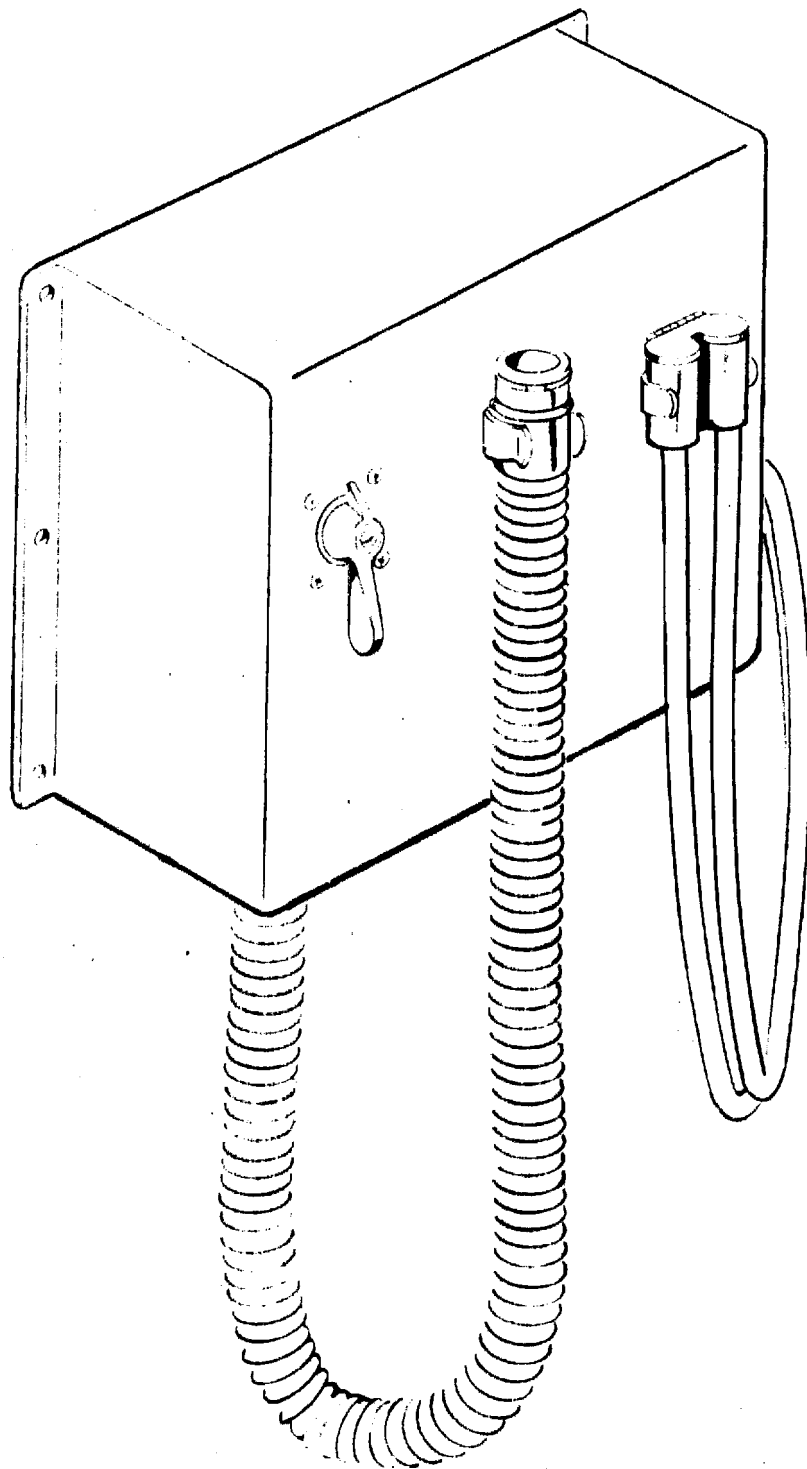
Remarks Suit Ventilation and Oxygen Facility P/N DN 78300-1 is a console which provides ventilation, hoses, flow control, and pressurization. All applicable vent and pressurization connections are provided. Approximate dimensions: 10" x 10" x 5".
Approximate weight: 5 LBS.

GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
GRAND TOTAL	0	0			0

Superseded By _____

Item Number C-5



DN78300-1

Suit Ventilation and Oxygen Facility

SECTION 4

VEHICLE LOX EQUIPMENT AGE

4-1	OT 2011	Lox Converter Electrical Test Set
4-2	OT 2012	Lox Converter Test Stand
4-3	F23614100-2	Lox Capacitance Test Kit
4-4	F23614200-3	Gaseous Oxygen System Test Kit
4-5	F7636000-1	Purging Kit
4-6	DN 71700-3	Pressure Switch Test Kit

Basic Date 10/30/64

Latest Revision _____

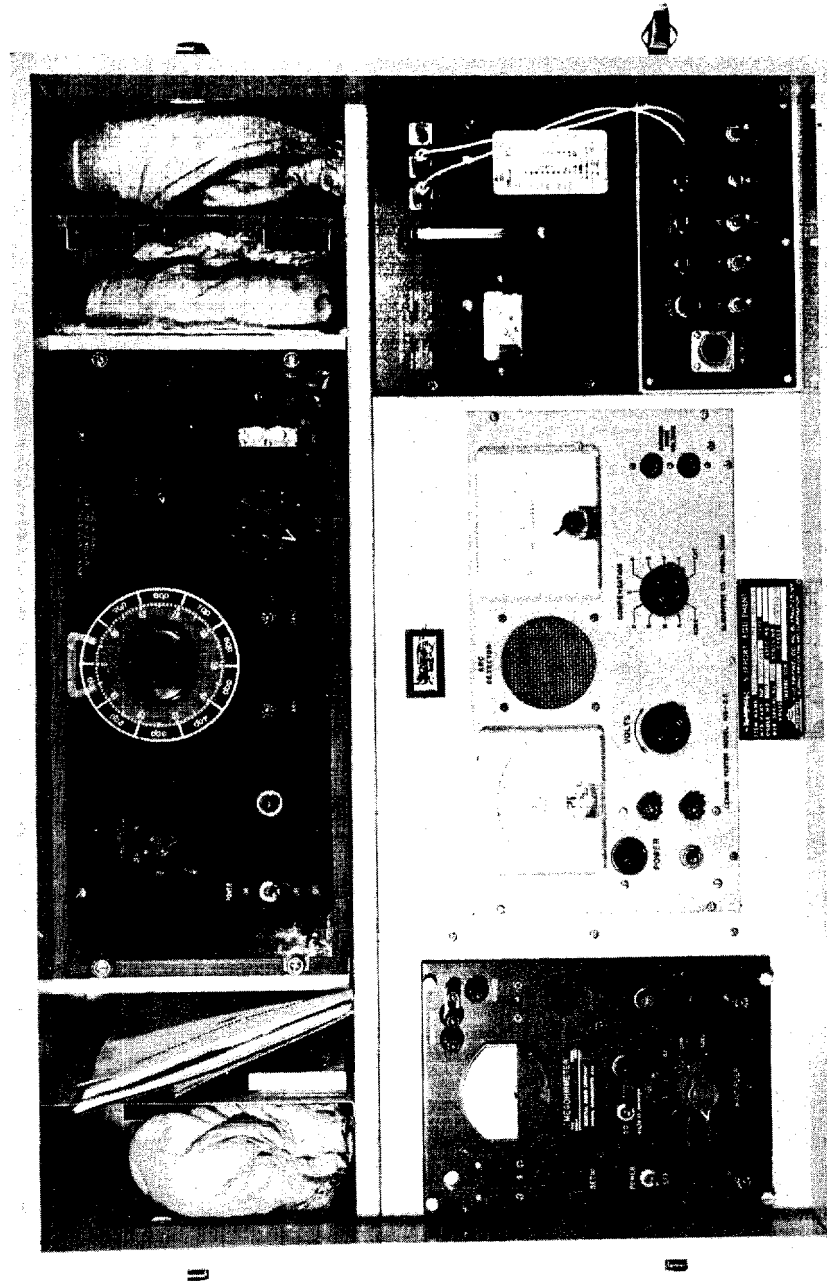
Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
OT 2011	Test Set, Electrical System, Liquid Oxygen Converter			(CFE) The Firewel Co., Inc.		

Additional Nomenclature if Required _____

Problem Area The electrical components of the liquid oxygen system must be accurately checked to determine, operation and calibration of the indicator, measure insulation leakage under high voltage, measure insulation resistance and capacitance of the probe. This test set would be used at the time of system overhaul and service.

Remarks Test set P/N OT 2011 is specifically designed to accomplish the above test requirements. The test unit incorporates the following components; Ohmeter, Capacitance standard variable, Hi Voltage Tester and Capacitance Bridge. Service requirements 115 volts AC, 400 cycle, 1 phase or 115 volts AC, 60 cycle, 1 phase. Approximate envelope dimensions 36 inches wide, 23 inches high and 11-1/2 inches deep. Approximate weight 105 lbs.

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
GRAND TOTAL	0	0			0



OT 2011
Test Set, Electrical System Liquid Oxygen Converter

REF ID: A66123

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
OT 2012	Test Stand Liquid Oxygen Converter	OT 2012		(CFE) The Firewel Co., Inc.		

Additional Nomenclature if Required

4-2 **Problem Area** A test stand is required to conduct all the operational tests on the liquid oxygen converter system. This test stand must be able to perform; relief valve leakage, evaporation loss, supply leakage, supply pressure, supply flow and overall leakage. This unit would be used at the time of overhaul.

Remarks Test stand P/N OT 2012 is specifically designed to accomplish the operational tests required for the liquid oxygen converters. The test stand is constructed using two pressure reducer regulators for two pressure systems, pressure gages with gauge protectors, timer, flow-meters, valves and a scale. Service requirements: 115 volts AC 60 cycle, 1 Phase, Pneumatic Energy: Source of compressed oxygen or nitrogen. Approx. envelope dimensions; 85 inches wide, 84 inches high and 31 inches deep. Approx. weight 870 lbs.

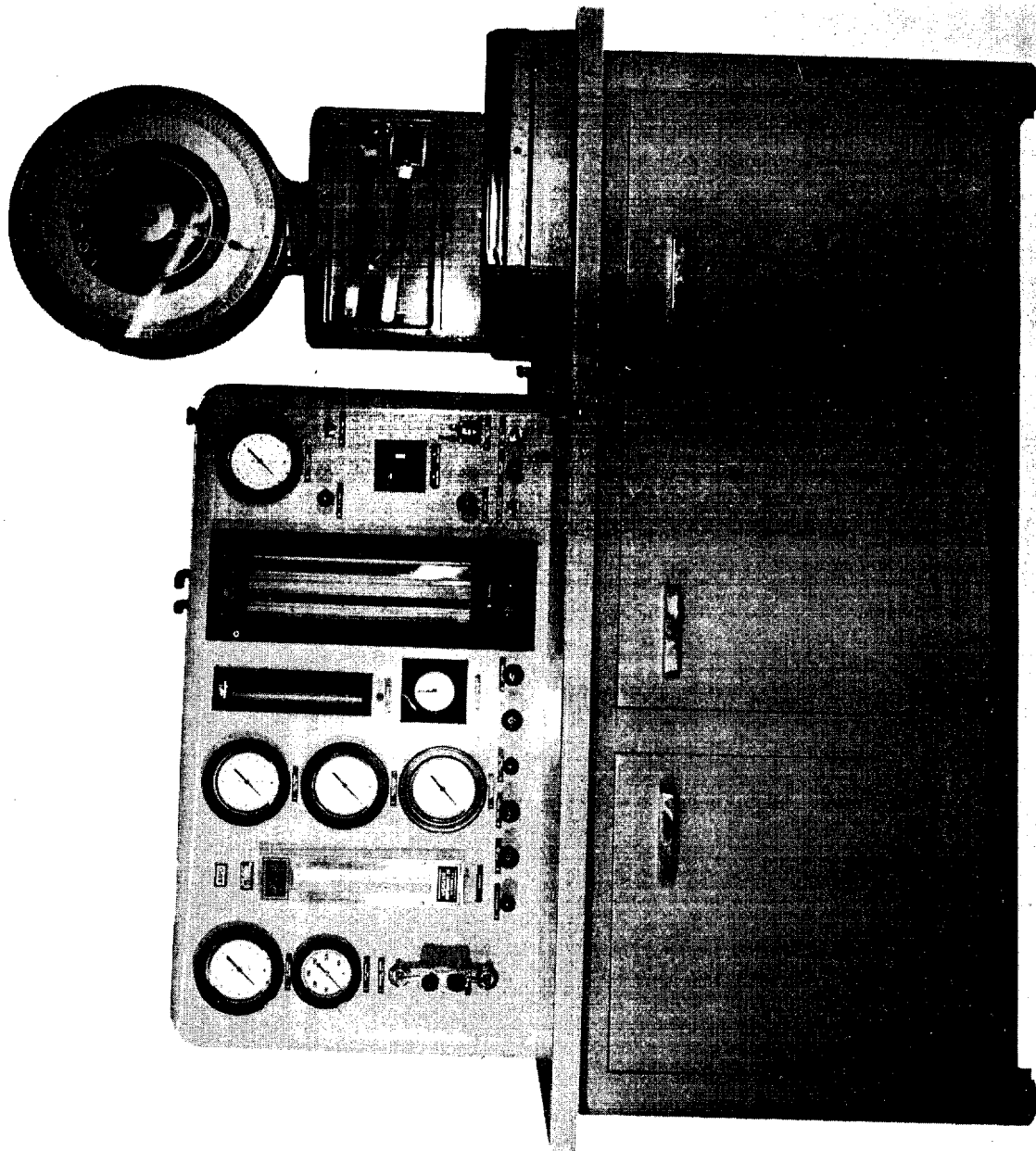
GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
	0	0			0

Superseded By _____

Item Number _____

D-2



OT 2012

Test Stand, Liquid Oxygen Converter

4-2A

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
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F23614100-2	Test Kit, Capacitance, Liquid Oxygen System	F23614100		(CFE) The Firewel Co., Inc.		
-------------	--	-----------	--	-----------------------------------	--	--

Additional Nomenclature if Required _____

Problem Area A portable unit is needed, that is capable of performing pre-flight capacitance checks on the electrical components in the aircraft oxygen system and to bench check the liquid oxygen converter and its components during field maintenance.

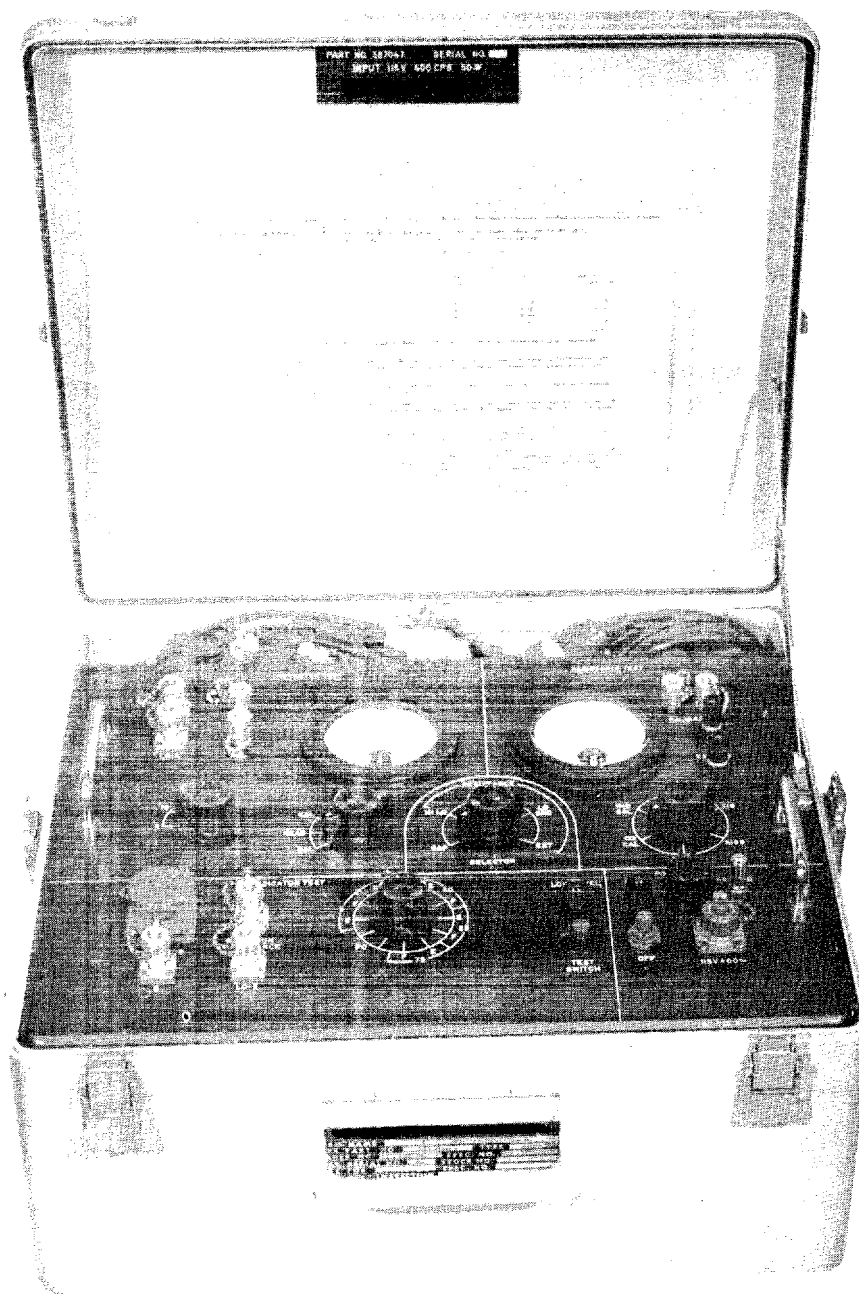
Remarks Test Kit P/N F23614100-2 is designed as a portable ground support tester capable of accomplishing flight line capacitance tests on liquid oxygen converter electrical components, quantity indicators and cable connections. Service requirements 115 volt 400 cycle A.C. Approx. envelope dimensions 17 inches wide, 16 inches long and 9 inches deep. Approx. weight 65 lbs.

GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
	0	0			0

Superseded By _____

Item Number D-3



F23614100-2

Test Kit, Capacitance Liquid Oxygen System

~~AGE REQUIREMENTS LIST~~Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
F23614200-3	Test Kit Gaseous Oxygen System	F23614200-3		(CFE) The Firewel Co., Inc.		

Additional Nomenclature if Required

4-4 Problem Area

A portable unit is needed, that will be capable of making pre-flight performance checks on the aircraft oxygen system and to bench check the liquid oxygen converter and components during field maintenance.

Remarks

Test Kit P/N F23614200-3 is designed as a portable ground support oxygen system tester, capable of performing such tests as; evaporation loss in vent position, leakage, supply, and gas build up. Service requirements, none. Approx. envelope dimensions 22 inches wide, 18 inches long and 12 inches deep. Approx. weight 80 lbs.

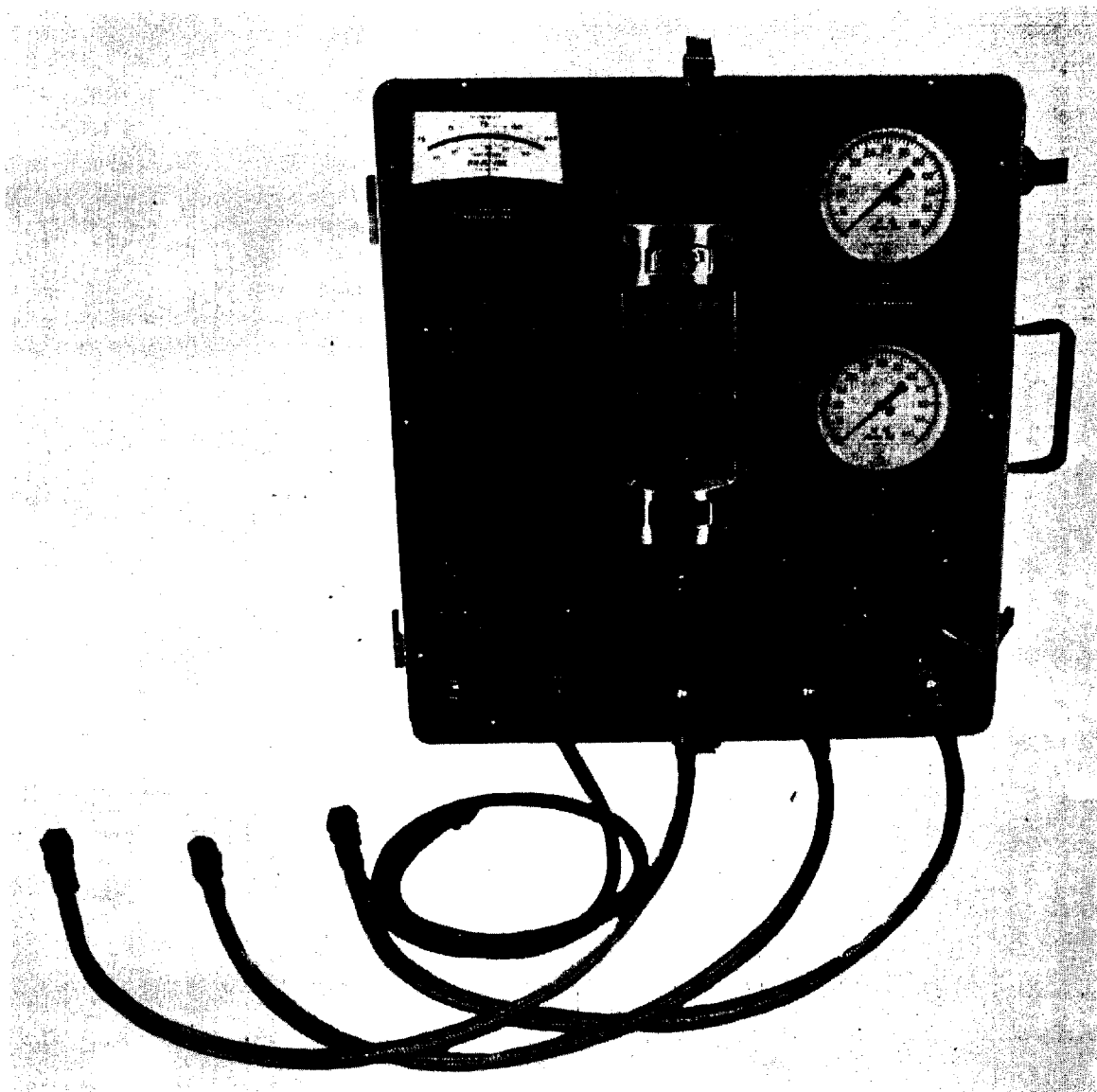
GRAND TOTAL

LOCATION	CONTRACT	CONTRACT	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					

Superseded By _____

Item Number

D-4



F23614200-3

Test Kit, Gaseous Oxygen System

REQUIREMENTS

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
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F7636000-1	Purging Kit	F7636000		(CFE) The Firewel Co., Inc.		
------------	-------------	----------	--	-----------------------------------	--	--

Additional Nomenclature if Required Liquid Oxygen Converter System

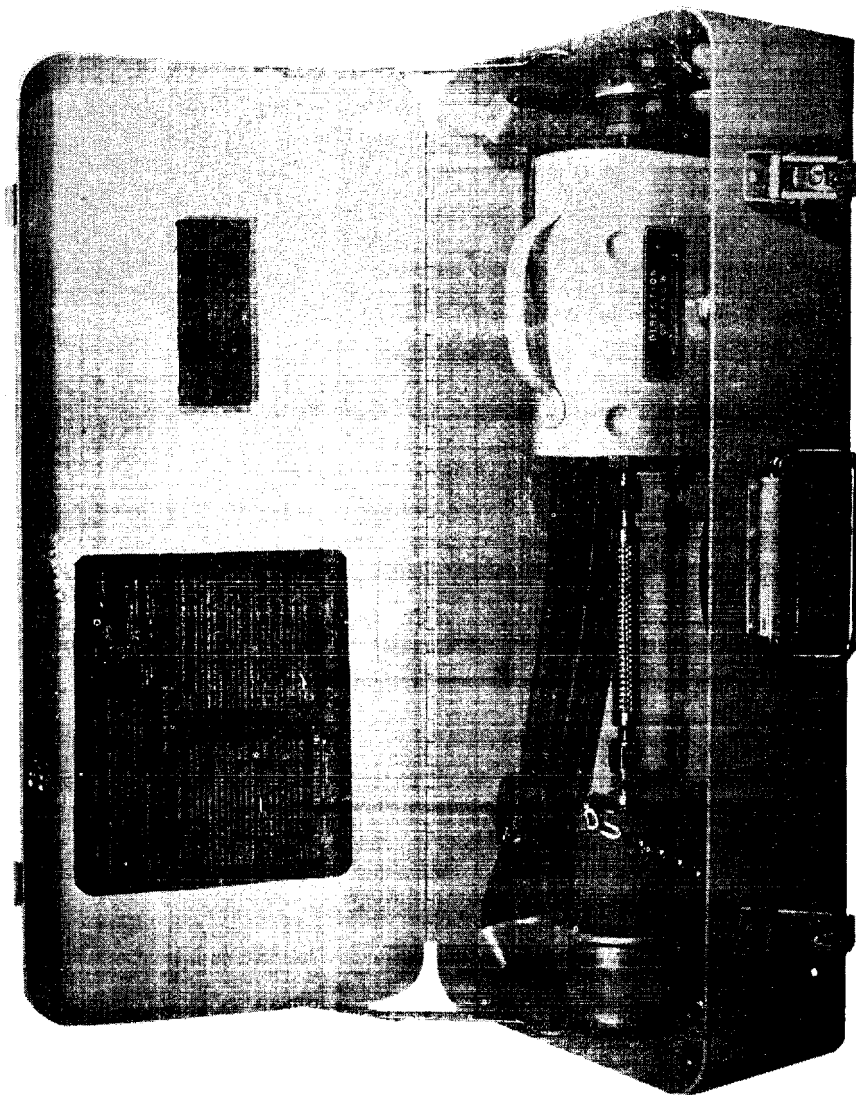
4-5 Problem Area To eliminate moisture and other contaminants which accumulate in liquid oxygen converter systems.

Remarks Purging Kit P/N F7636000-1 is a portable ground support unit capable of purging moisture and other contaminants from aircraft liquid oxygen systems. The purging is accomplished utilizing hot gas under pressure. Power requirements for this kit are 110 to 120 volts at 60 or 400 cycles and single phase. The kit has been designed to operate with any supply pressure between 50 and 500 PSIG. Operating pressure is 5 PSIG (MIN) at 60-75 LPM and 30-50 PSIG at no flow. Unit is operable within ten (10) minutes after plug-in, at which time the integral heater is between 220° - 250°F. The purging kit outline dimensions are 6 inches by 8-1/2 inches by 20-1/2 inches and weighs 15.2 lbs.

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mig Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
GRAND TOTAL	0	0			0

Superseded By _____

Item Number D-5



F7636000-1

Purging Kit

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
DN 71700-3	Test Kit, Pressure Switch	DN 71700		(CFE) The Firewel Co., Inc.		

Additional Nomenclature if Required

4-9 Problem Area A means of checking the dual oxygen system pressure switches for operation. Unit should be mobil so that these checks can be made at the aircraft itself.

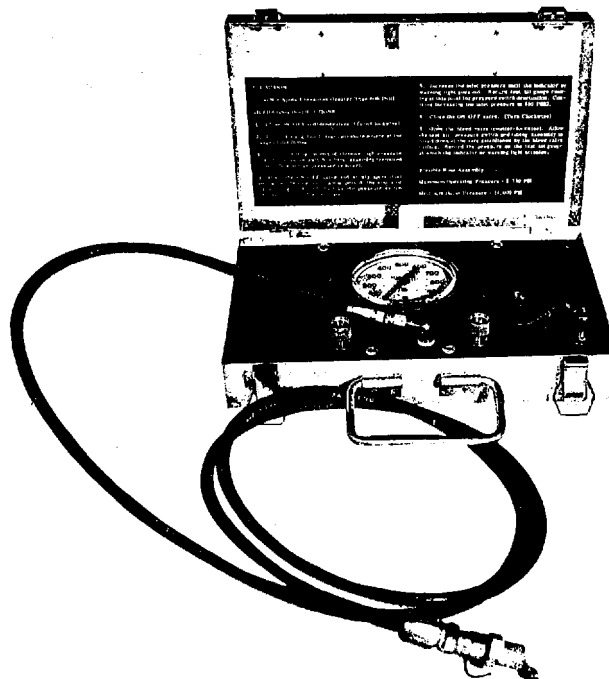
Remarks Test kit P/N 71700-3 is specifically designed for testing the pressure switches in the dual oxygen system. This compact test unit incorporates the following components; one bleed valve, one Off-On valve, one input, flexible hose and connector fitting and a pressure gage (0-600 PSIG). Approx. envelope dimensions; 10 inches wide, 6 inches long and 2-9/10 inches high, and weighs approximately 18 lbs.

GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
	0	0			0

Superseded By _____

Item Number D-6



DN 71700-3

Test Kit, Pressure Switch

SECTION 5

PARACHUTE PACKING LOFT AGE

- | | | |
|-----|--|------------------------------------|
| 5-1 | F278-1720-1 | Actuator and Calibration Test Unit |
| 5-2 | F278-1700-1 | Parachute Components Test Stand |
| 5-3 | Miscellaneous Parachute Shop Equipment | |
| 5-4 | DN 55500-1 | Riggers Kit |

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
F278-1720-1	Test Unit Actuator and Calibration	F278-1720		(CFE) The Firewel Co.		

Additional Nomenclature if Required _____

Problem Area - A means of calibrating and loading parachute actuators prior to installation into the parachute assembly.

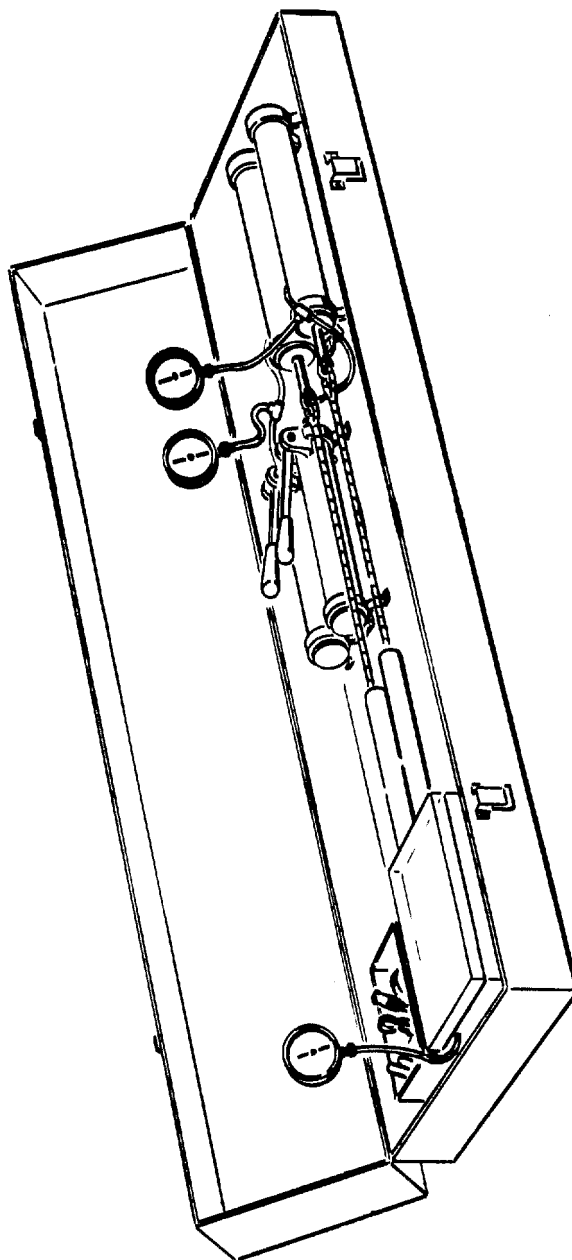
Remarks - Test unit P/N F278-1720-1 is specifically designed to conduct the above requirement. This unit is comprised of two hydraulic hand pumps, two pressure gages and a small altitude chamber. Approximate overall dimensions are 5 foot long, 12 inches deep and 6 inches high. Approximate weight 65 LBS.

GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
GRAND TOTAL	0	0			0

Superseded By _____

Item Number E-1



F278-1720-1

Test Unit, Actuator and Calibration

5-1 A

Basic Date 10/30/64

Latest Revision _____

Stock Number Part Number	Nomenclature	Drawing Number	Cost	Source of Supply	Production Lead Time	Date Required
F278-1700-1	Test Stand Parachute Components	F278-1700		(CFE) The Firewel Co.		

Additional Nomenclature if Required _____

Problem Area - A means of performing field maintenance checks on the parachute oxygen reducers, hoses and disconnects. Also periodic inspection on complete oxygen assembly. An altitude chamber must be available to clear the actuators prior to use.

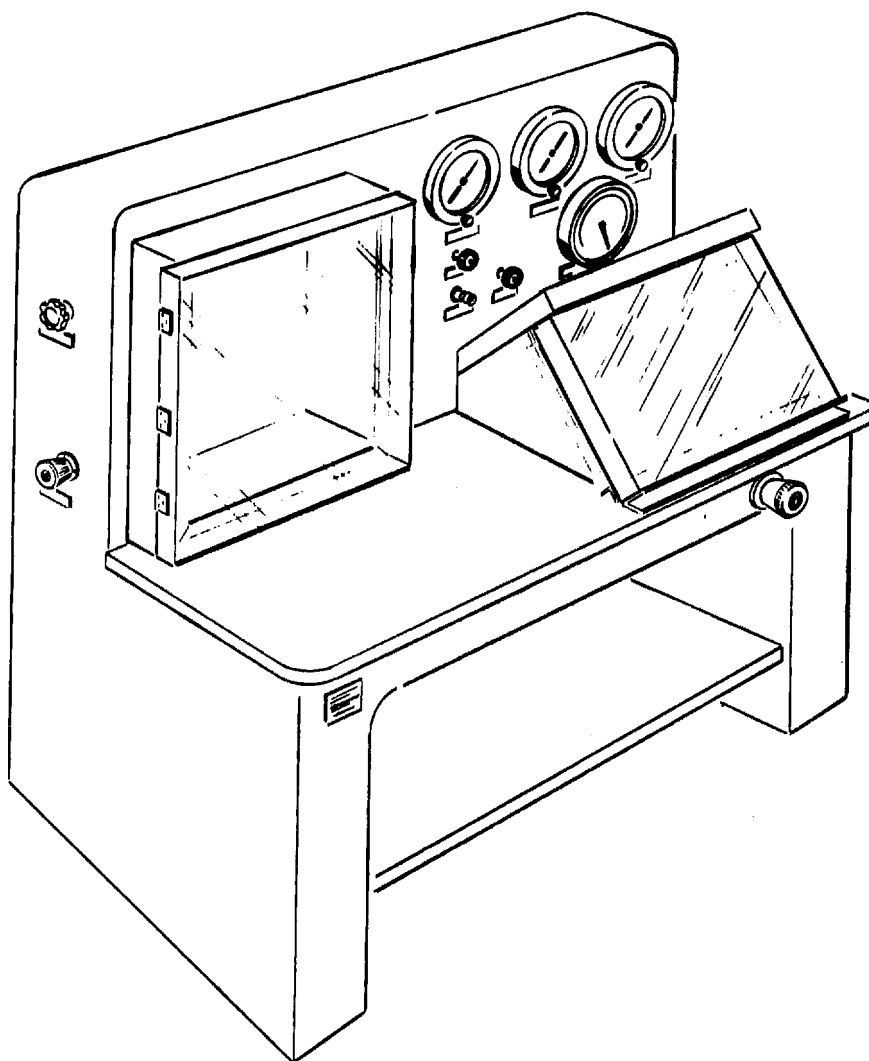
Remarks - Test stand P/N F278-1700-1 is specifically designed to accomplish the above requirements. The test unit is comprised of high and low pressure valves and gages and has two chambers. One chamber is used for altitude and the other for charging oxygen bottles used in the parachute assy. Approx. overall dimensions are 60 inches long, 35 inches wide and 60 inches high. Approximate weight 560 LBS.

GRAND TOTAL

LOCATION	CONTRACT R & D	CONTRACT PROD.	CONTRACT	CONTRACT	TOTAL PROCUREMENT
Mfg Fac					
Test Site					
1					
2					
3					
4					
5					
6					
7					
8					
GRAND TOTAL	0	0			0

Superseded By _____

Item Number E-2



F278-1700-1

Test Stand, Parachute Components

Shop Equipment for Maintenance Requirements for 24 each
Parachute Assemblies on 1 year basis

1. Packing and Inspection Tables	2 Each	GFE
2. 97-10 Heavy Duty Sewing Machine	1 Each	GFE
3. Straight Stitch Single Needle Sewing Machine	1 Each	GFE
4. Zig Zag Stitch Single Needle Sewing Machine	1 Each	GFE
5. Grommet Setting Machine with Tools	1 Each	GFE
6. Hot Knife Searing Machine	1 Each	GFE
7. Wax Pot Heating Device	1 Each	GFE
8. Table Covers	2 Each	GFE
* 9. Riggers Kits	4 Each	The Firewel Co.
10. Weighing Scale	1 Each	GFE
11. Portable Stowage Bins	6 Each	GFE
12. Shear Heavy Duty	4 Each	GFE
13. Assorted Textile and Hardware Materials		

* See page 5-4

RIGGERS' KIT**PART NUMBER DN 55500-1****CONTENTS**

ITEM	PART NO.	DESCRIPTION	QTY
1.	DN 50064-1	Packing Hook (Main)	2
2.	DN 50065-1	Packing Hook (Drogue)	1
3.	DN 50067-1	Pilot Chute Guide Tube	1
4.	DN 50069-1	Bodkin	1
5.	DN 50076-1	Temporary Pin	6
6.	DN 50077-1	Long Temporary Pin	1
7.	DN 50078-1	Pull Up Tool	1
8.	DN 50079-1	Packing Sticks	4
9.	DN 50080-1	Shot Bags	6
10.	#654 Utica	Long Chain Nose Side Cutting Pliers	1
11.	#6 Williams	Combination Slip-Joint Pliers	1
12.	#20 Stanley-2-1/2"	Hurwood Screwdriver (Flat)	1
13.	#20 Stanley-6"	Hurwood Screwdriver (Flat)	1
14.	#2702 Stanley	Phillips Screwdriver	1
15.	#2703 Stanley	Phillips Screwdriver	1
16.	#3423 Yankee	Offset Ratchet Screwdriver	1
17.	#507-10 Utica	Rib-Joint Pliers	1
18.	#41 Utica 4"	Diagonal Cutting Pliers	1
19.	#6 Stanley	Scratch Awl	1
20.	#36 Wiss	Scissors	1
21.	14/18 Boye	Needles	3 Pkgs
22.	CS-16 Kennedy	Tool Box	1

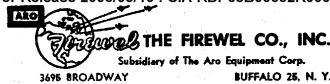
UNIT SELLING PRICE \$149.67

SECTION 6

Composite AGE List

This section contains the composite listing of the following
Aerospace Ground Equipment:

- List A. Suit Equipment
- List B. Ventilation Equipment
- List C. Ready Room Equipment
- List D. Vehicle Lox Equipment
- List E. Parachute Packing Loft Equipment



TYPE OF LIST										AEROSPACE GROUND EQUIPMENT										Date: October 30, 1964		List Number:				
Model Designation and Name of End Item:										Contractor: Firewel Co., Inc.					Contract No.					Quantity:			Revision Number:			
Item No.	Functional Area Index Number	STOCK NUMBER			Nomenclature	Tech. Des. Data of Prob. Area	Units	BASIS OF ISSUE & QUOTA ALLOCATIONS						Total on Order	Unit Price	Total Price	Cognizance Laboratory Center & Service	Status Class	Proposed Source of Supply	Source Code	Estimated Availability Date of First Item	Estimated Production Lead Time	Date of ARDC Appr.	End Item Effectivity	Sec. Class. & Remarks	
		Class Code	Serial Number or FIIN	Mfg. Part No.				Combat Sqdn.	Periodic	Field	A & E Sqdn.	Depot	Test													
(1)	(2)	(3)			(4)	(5)	(6)	(7)						(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	
A-1					DN71800-3 Test Stand, Suit Components							2						CFE		7/1/65	7 Mo.			STAT		
A-1.1					DN71800-3 Special Assembly for Test Stand																					
A-2					FS8923-1 Dead Weight Tester													GFE								
A-3					FS8922-1 Gauge													GFE								
A-4					FS8919-1 Barometer, Master													GFE								
A-5					FS8921-1 Low Flow Measuring Devices													GFE								
A-6					FS8920-1 Multi-Stage Flowrators													GFE								
A-7					DN70700-3 Full Pressure Suit Tester							14						CFE		1/15/65	4 Mo.			STAT		
B-1					OT2013 Test Stand, Liquid Oxygen Converter Components													CFE								
B-2					DN22800-1 Age, Dual Disconnect							19						CFE		1/15/65	4 Mo.			STAT		
B-3					F152-1000-1 Ventilator, Liquid Oxygen							34						CFE		1/15/65	5 Mo.					
B-4					F204-4560-1 Valve Assembly, Suit Loading							8						CFE		7/1/65	3 Mo.					
B-5					DN71800-3 Deleted, See Item No. A-1																					

ALSO



THE FIREWEL CO., INC.

Subsidiary of The Aero Equipment Corp.

3695 BROADWAY

BUFFALO 26, N. Y.

TYPE OF LIST																			AEROSPACE GROUND EQUIPMENT		Date: October 30, 1964		List Number:		
Model Designation and Name of End Item:										Contractor: Firewel Co., Inc.				Contract No.				Quantity:		Revision Number:					
Item No.	Functional Area Index Number	STOCK NUMBER			Nomenclature	Tech. Des. Data of Prob. Area	Units	BASIS OF ISSUE & QUOTA ALLOCATIONS						Total on Order	Unit Price	Total Price	Cognizance Laboratory Center & Service	Status Class	Proposed Source of Supply	Source Code	Estimated Availability Date of First Item	Estimated Production Lead Time	Date of ARDC Appr.	End Item Effectivity	Sec. Class. & Remarks
		Class Code	Serial Number or FIIN	Mfg. Part No.				Combat Sqdn.	Periodic	Field	A & E Sqdn.	Depot	Test												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)							
B-6					F278-1760-1 Liquid O ₂ Ventilator Fill Fixture											STAT		CFE	7/1/65	6 Mo.					
C-1					DN70800-3 Ventilation Unit													CFE							
C-2					DN78200-1 Chair, Ready Room with Side Table											STAT		CFE							
C-3					DN70700-3 Deleted, see Item No. A-7													CFE							
C-4					DN78300-3 Suit Ventilation, Oxygen, and Inter-communication Facility											STAT		CFE							
C-5					DN78300-1 Suit Ventilation and Oxygen Facility											STAT		CFE							
D-1					OT2011 Test Set, Electrical System, Liquid Oxygen Converters													CFE							
D-2					OT2012 Test Stand, Liquid Oxygen Converter													CFE							
D-3					F23614100-2 Test Kit, Capacitance, Liquid Oxygen System													CFE							
D-4					F23614200-3 Test Kit, Gaseous Oxygen System													CFE						* Fill Disconnects GFE ** Intercom Set GFE	
D-5					F7636000-1 Purging Kit													CFE							
D-6					DN71700-3 Test Kit, Pressure Switch											STAT		CFE							

E.D.F. 122

ITEM VII - TRAINING

We anticipate providing the services of one (1) Instructor for a six (6) month period to train the Air Force personnel in the operation, check-out, maintenance and fault isolation of the parachute, emergency oxygen system, full pressure suit hardware, vehicle LOX hardware and the associated A.G.E. needed to service the equipment which we supply.

Indoctrination and training presentations using 16 mm. sound movies, slides, models and flip-charts are anticipated for the maintenance personnel, pilots, firemen, crash rescue personnel, etc.

Estimated Cost to perform this task is as follows:

Instructor (1)
19.3 days/mo x 6 mos.

Instructional Aids

TOTAL

STAT
STAT

- * Does NOT include relocation expenses; these will be resolved at time of transfer.
- ** Movies would require the use of some facilities and equipment to present a realistic illustration of the proper procedures. Price includes master film, plus three additional copies of each film.

STAT

Approved For Release 2006/03/10 : CIA-RDP68B00632R000100030021-7

Next 11 Page(s) In Document Exempt

Approved For Release 2006/03/10 : CIA-RDP68B00632R000100030021-7

ITEM VIII - FIELD REP SUPPORT

As a result of the parameters established at the meeting held at WSP0 on November 5 and 6, 1964, we are re quoting our Field Rep Support as follows:

25X1 [] - No permanent rep will be required here except that
25X1 the services of our man at [] would be required occasionally.
This would necessitate the extension of the contract for our representative at BW-4 at the expiration of his contract in June 1965.

25X1 [] - Three (3) Field Representatives for the initial one
(1) year are necessary to support the activity at this base. At the end of this time, one (1) man is necessary for permanent assignment.

The reps at this location are necessary to train, supervise and monitor the Air Force personnel in performing their duties on our equipment. This covers the scope of the full pressure suit hardware, the parachute and emergency oxygen equipment, the vehicle's LOX equipment and all the associated AGE, including the test stands, portable ventilator/breather units, ready room equipment, portable test kits, mobile ready room vans, pilot transport vans, etc.

In addition, the services of one man have been requested to assist the ADP people in their vehicle maintenance problems on this LOX equipment.

Cost to Perform Above:

STAT 4 men @ []
man/days/mo. x 12 mos. [] STAT

S T A T E M E N T S

CONTRACT:

A FIXED-PRICE CONTRACT is proposed on all items except Item VI - Engineering Change Costs - and Item VII - Training. On these items, a T&M or CPF type contract is anticipated.

No Government facilities will be used in the performance of this Contract.

Government-Furnished Property will be required, as noted.

Prices listed are f.o.b. BUFFALO, NEW YORK.

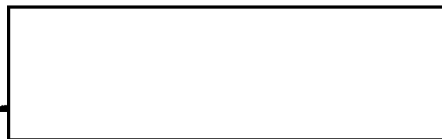
Quote is valid for ninety (90) days.

Delivery - as specified in inquiry.

Certification of Pricing is enclosed.

CERTIFICATE OF CURRENT PRICING DATA

THIS IS TO CERTIFY that, to the best of my knowledge and belief, in the preparation of the Proposal for equipment to be produced under the terms of Proposal No. AM-1349, all actual or estimated costs or pricing data available as of October 8, 1964 have been considered in preparing the price estimate, and made known to the Contracting Officer or his representative for use in evaluating the estimate, and any significant changes in the above data which have occurred since the aforementioned date through the 8th day of October, 1964 also have been made known in the price negotiations to the Government negotiator.



STAT

CONTROLLER

THE FIREWEL COMPANY, INC.

Note that 18 U.S.C. 1001 prescribes criminal penalties for making false representations to the government. (May 1960)